AMENDMENTS TO THE CLAIMS

1. (Currently Amended) System for detecting the level of a liquid in a tank, comprising:

at least two electrodes extending into the inside of said tank, in contact with said liquid, said electrodes being separated by a volume of liquid presenting an own electrical resistance variable in relation to the level of the liquid in said tank, [[and]] wherein said variable resistance is influenced by environmental conditions and by physical properties of said liquid;

detecting means electrically connected to said electrodes, and powered by a voltage source; and

a control unit suitable for controlling said detecting means;

wherein said detecting means comprise a capacitance connected in series to said resistance, and a current generator connected in series between said resistance and said capacitance, said current generator being suitable for being activated by said control unit for powering said resistance and for charging said capacitance with said current until a predefined voltage is reached on the terminals of said capacitance, during a corresponding charge time representative of the current level of said liquid in said tank, and

wherein said control unit is prearranged for storing said charge time in a memory and for activating at later times said generator for a duration equal to said stored charge time, so that said capacitance is charged with a current such as to produce on said capacitance a voltage drop proportional to the variation of said resistance caused by a corresponding variation of the level of said liquid, and independent of [[and]] said physical properties.

2. (Original) Detecting system as in claim 1, wherein the value of said voltage drop equal to or less than said predefined value represent with continuity corresponding levels of said liquid equal to or less than said maximum level.

3. (Canceled)

4. (Original) Detecting system as in claim 1, wherein said physical properties comprise the chemical composition of said liquid.

5. (Original) Detecting system as in claim 1, wherein said tank consists of a cartridge for the ink of an ink jet printhead, said cartridge being filled with a porous body impregnated with said ink.

6. (Original) Detecting system as in claim 5, wherein said electrodes are inserted in said porous body, and that said electrical resistance corresponds to the resistance of a volume of said ink between said electrodes, and variable in relation to the consumption of ink by said printhead.

7. (Original) Detecting system as in claim 1, wherein said detecting means comprise a non-volatile memory suitable for storing said charge time representative of the maximum level of said liquid in said tank.

8. (Original) Detecting system according to claim 7, wherein said non-volatile memory is integral with said cartridge.

9. (Currently Amended) Detecting system as in claim 1, wherein said detecting means comprise a first transistor connected in series between said resistance and said capacitor and selectively polarized by a pair of fixed resistances, said detecting means being powered by said voltage source, and a second transistor, wherein said second transistor is normally off[[,]] and is connected in series to said pair of resistances, said second transistor being activated by a signal of duration equal to said representative charge time, so that said first transistor is actuated for charging said capacitor with a current, such as to produce on said capacitance a voltage drop representative of the level of said [[ink]] liquid.

10. (Withdrawn) System for detecting the level of a liquid in a tank, comprising: at least two electrodes extending into the inside of said tank, in contact with said liquid, said electrodes constituting a capacitor, the capacitance of which is variable in relation to the level of the liquid in said tank, and influenced by environmental conditions and by physical properties of said liquid; detecting means; wherein said detecting means comprise a resistance connected in series to said capacitor and a current generator connected in series between said resistance and said capacitor, said current generator being suitable for being activated by said control unit for powering said resistance and for charging said capacitance with said current until a predefined voltage is reached on the terminals of said resistance, during a corresponding charge time, representative of the current level of said liquid in said tank, and wherein said control unit is prearranged for storing said charge time in a memory and for activating at later times said generator for a duration equal to said stored charge time, so that said capacitance is charged with a current such as to produce on said resistance a voltage drop proportional to the variation of said capacitance caused by a corresponding variation of the level of said liquid, and independent of said environmental conditions and said physical properties.

11. (Withdrawn) Detecting system as in claim 10, wherein said liquid is dielectric, having a defined dielectric constant and influenced by said environmental conditions and by said physical properties.

12. (Withdrawn) Detecting system as in claim 11, wherein said liquid is a derivative of crude oil.

13. (Previously Amended) Method for detecting the level of a liquid in a tank, comprising the following steps: providing at least two electrodes extending into the inside of said tank, in contact with said liquid, whereby said electrodes are separated by a volume of liquid presenting an own electrical resistance variable in relation to the level of the liquid in said tank; providing detecting means electrically connected to said electrodes, and powered by a voltage source, said detecting means comprising a capacitance connected in series to said resistance, and a current generator connected in series between said resistance and said capacitance; activating

said current generator for powering said resistance and for charging said capacitance with a first current until a predefined voltage is reached on the terminals of said capacitance; measuring a corresponding charge time of said capacitance as representative of the current level of said liquid in said tank; storing said charge time in a memory; activating at later times aid current generator for a duration equal to said stored charge time, whereby said capacitance is charged with a second current such as to produce on the terminals of said capacitance a corresponding voltage drop; and measuring said voltage drop as suitable for obtaining from it the level of said liquid in said tank.